



San Jacinto River Waste Pits Superfund Site USACE Support



9674431



San Jacinto River Waste Pits

Oct 1964



**South
Impoundment
1965**



Temporary Cap Construction Completed July 2011







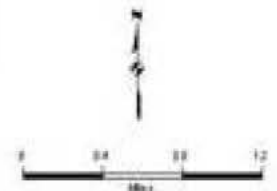


Previous USACE involvement:

- **Review of PRP modeling report.**
- **Review of PRP temporary cap design.**
- **Review of PRP draft Feasibility Study.**
- **Permit Evaluation (EPA/USACE/TCEQ).**

San Jacinto River Waste Pits

-  Preliminary Perimeter - EPA (2000)
-  Permits Area of Concern - USACE, EPA, TCEQ (2004)
-  1966 Original Perimeter of Improvements - EPA (2000)
-  Identify & Implement Levels of 1-10 - EPA (2000)



Source:
Aerial photo is from DigitalGlobe 1/2000.
Preliminary Perimeter is from EPA Region 6.
1966 Original Improvements was created by EPA Region 6 using 1966 aerial photo from USGS.
Improvements Levels of 1-10 was created by EPA Region 6 using 1964 aerial photo from USGS.
Permits Area of Concern is from the USACE, EPA, and TCEQ.

EPA makes no claim as to the accuracy of the data or its suitability for any particular use.

Map created February 10, 2011



EPA Region 6
GIS Support Team
Dallas, Texas
2011021001



The Issues:

- **San Jacinto River**
- **Community concerns**

San Jacinto River

- Upper Texas coast recorded 25 hurricanes, 7 of which were major (Category 3 to 5) storms.
- October 1994 storm greater than 100-year flood (1.6 times):
 - Major soil erosion – 8 pipelines ruptured & 29 undermined; 3000 homes destroyed.
 - 10 to 12-feet of bed scour south of the I-10.



Lower San Jacinto River

San Jacinto River at I-10 (Photo: HCFCD)

Temporary Cap – Berm Erosion

- Western Berm erosion July 2012.
- Completion of repairs August 2012.



USACE Support

- **Should waste stay or should it go?**
- **Construction oversight (amend IAG).**

***Engineer Research and Development
Center (ERDC), Vicksburg MS.***



U.S. Army Corps of Engineers

- Computer models – river flow & scour.
- Evaluation of remedial alternatives.
- Short & long term cap reliability? [storms, prop wash & barge strikes].
- Any migration through cap?
- Removal Best Management Practices.



Lake Houston

SJR Waste Pits

Houston Ship Channel

Morgan's Point

2.838 Kilometers

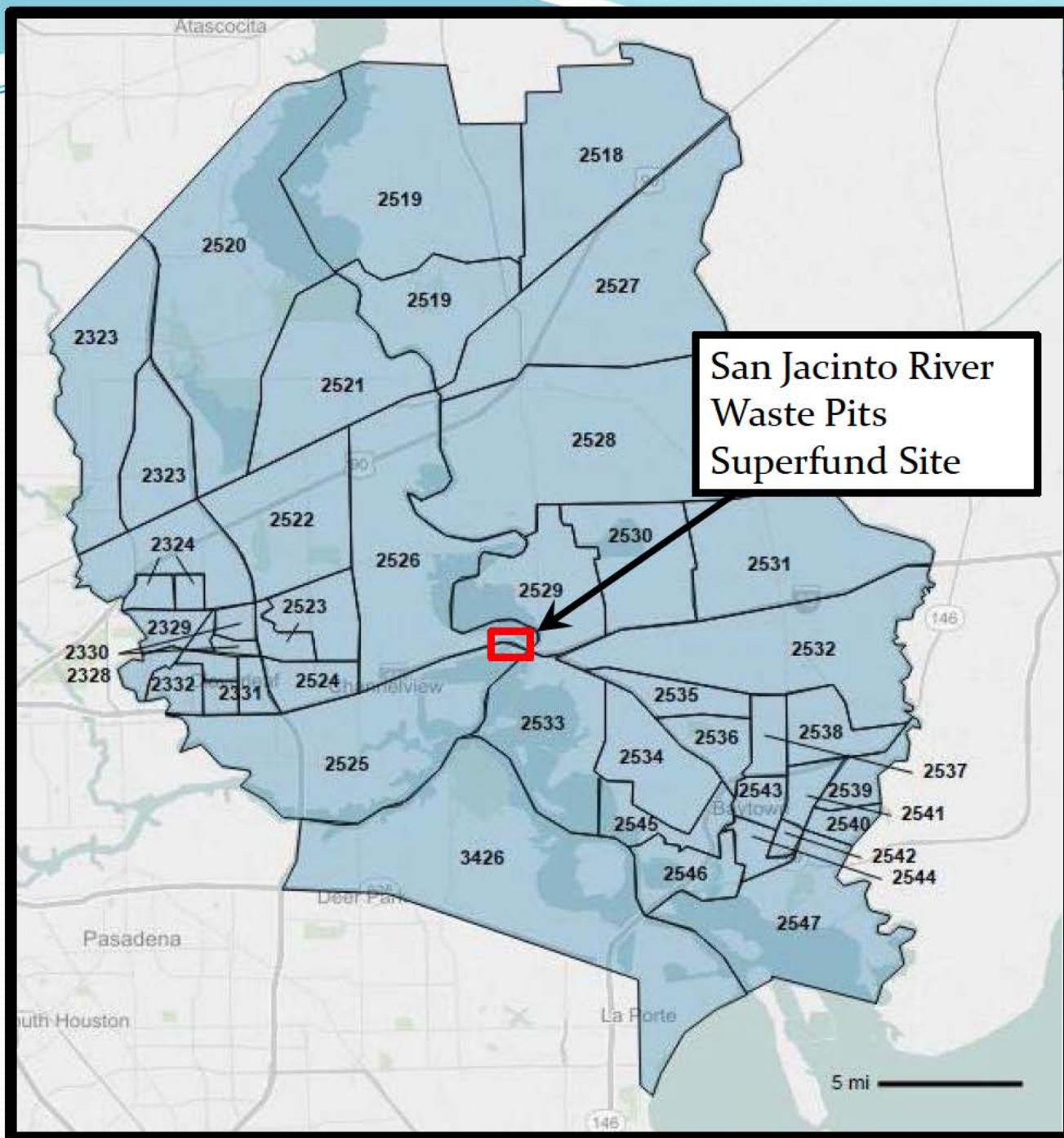
U.S. Army Corps of Engineers

Completed work:

- New model calibrated.
- Design/construction review of entire cap.
- Assessed potential dioxin migration through cap.
- Assessed potential barge strike impacts.
- Identified engineering/institutional controls.
- Case history of armor failures.
- Sediment re-suspension & residuals; BMPs.

Texas Department of State Health Services:

- Completed investigation of cancer & birth defects – found elevated:
 - Childhood brain cancer.
 - Childhood eye cancer.
 - Leukemia.
 - Liver & cervical cancers.
- Door-to-door visits to discuss health concerns, interviewed over 800 persons.



What's Next?

- Dive team recon site next week.
- PRPs semi-annual cap inspection/survey 7/1/2015.
- Dive team conduct passive sampling of cap/sediment in cooperation with the PRPs.
- Dive team conduct underwater cap inspection.

